CONTENTS

Analysis of High Purity Metals and Semiconductor Materials by Glow Discharge Mass Spectrometry 1
A. P. MYKYTIUK, P. SEMENIUK and S. BERMAN

Lasers and Chromatography 11
A. BERTHOD

Molecular Fluorescence in Micelles and Microemulsions: Micellar Effects and Analytical Applications 27
J. GEORGES

Thermal Vaporisation for Sample Introduction in Microwave Induced Plasma Analytical Emission Spectrometry 47
H. MATUSIEWICZ

High Sensitivity Intracavity Laser Spectroscopy: Applications to the Study of Overtone Transitions in the Visible Range 69
A. CAMPARGUE, F. STOECKEL and M. CHENEVIER

Direct Sample Insertion Devices for Inductively Coupled Plasma Spectrometry 89
V. KARANASSIOS and G. HORLICK

Spectroscopy and Archaeometry 167
U. LEUTE

Time Resolved Nonlinear Raman Spectroscopy for the Analysis of Transient Molecular Species 191
A. LAU, W. WERNCKE and M. PFEIFFER

Chemical Modification in Graphite-Furnace Atomic Absorption Spectrometry 225
D. L. TSALEV, V. I. SLAVEYKOVA and P. B. MANDJUKOV

Plasma Modeling and Computer Simulation of Spectroanalytical Inductively Coupled Plasma Discharges 275
P. YANG and R. M. BARNES

Concentration Gradient Detection Based on Schlieren Optics 311
J. PAWLISZYN

Hadamard Transform Spectroscopy and Imaging 355
P. J. TREADO and M. D. MORRIS

Non-Linear Photothermal Spectroscopic Analysis of Ion-Implanted Silicon Wafers 377
E. P. C. LAI, C. S. SILUNDIKA, I. W. WYLIE and R. GUO

Recent Advances in the Determination of Inorganic Substances by Separation and Chemiluminescence Detection 399
T. FUJIWARA and T. KUMAMARU

Laser-Excited Atomic Fluorescence Spectrometry in Graphite Furnace Electrothermal Atomizer 407
S. SJÖSTRÖM

Analytiktreffen 1990: Atomic Spectrometry — Progress and Analytical Applications 467
J. A. C. BROEKAERT